



## How to Make a Volcano

There is no need to be frightened. This volcano makes the earth tremble, it sends out smoke and flashes, sometimes it opens in cracks from which molten stuff escapes. But it is all on a small scale.

The materials for making the volcano are iron-filings and flowers of sulphur, which you may get from a chemist. You need nearly twice as much iron-filings as sulphur - not quite. Fourteen ounces of iron-filings to eight ounces of sulphur is nearer the mark.

Mix the iron-filing and sulphur. Turn them over and over until they are thoroughly mixed. Then add water, a little at a time, until you have made the mass into a very stiff paste.

Choose a part of the garden where a small eruption will not do much damage. Leave the mixture in the sun while you are getting ready a heap of damp earth. Then put the mixture in a heap on the ground and cover it with a mass of earth. Pat the earth down, and wait on events.

"Amusing Science Tricks" from *The Big Book for Boys*, Oxford, 1927.

# Pedal power could alleviate energy, pollution problems

**A** PEOPLE-POWERED PEDAL CAR DEVELOPED HERE AT SIR GEORGE MAY BE ON THE ROAD WITHIN A YEAR, opening the way for possible solutions to energy and pollution problems in inner city transport, according to engineering design man Fred Blader.

The idea in a nutshell is to convert a bicycle into a three-wheel car. But cracking the nut is not so easy and over 60 students divided into six groups have put their effort to tackling different parts of the problem, under mechanical engineering prof Blader and two other teachers, Clyde Kwok and Richard Cheng.

Blader said the car should weigh

something in the order of 150 to two hundred pounds, figuring in the frame and fibreglass body and if all goes successfully the car should move with the same speed and with the same people-power that a bicycle involves. The design that mechanical engineering student Paul Labelle and his section are working on is a two passenger car but, unlike your con-

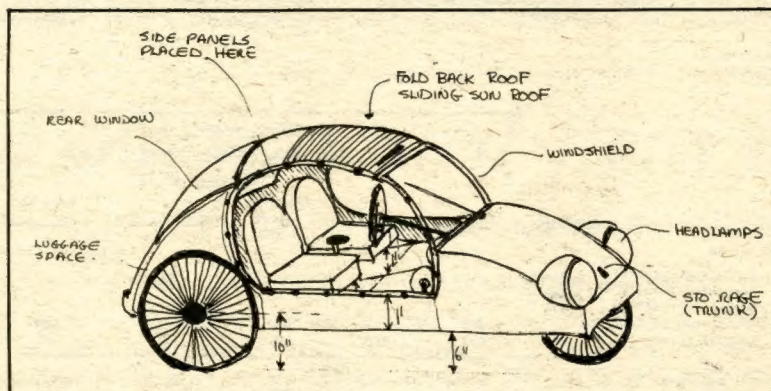
ventional car, both passengers do the peddling, similar in some respects to the common, everyday Volkswagen, as some unhappy owners will tell you.

Moving the thing in the most economically powered way is the question being tackled by Labelle's section. Labelle said that computations on the experiment are still to come but the section has come up with tentative conclusions about where the passenger should be positioned in order to put maximum leg muscle into moving the car - roughly level with the pedals directly in front of the driver.

We asked Labelle what the future could hold for a pedal car: "It'll be for the type of person who drives a few miles to work," Labelle said. "It'll be used for going to the shopping centre for groceries, that sort of thing." We looked skeptical. We thought Mount Royal may be a molehill to Labelle but it's a mountain to us: "We'll design our gear ratio," Labelle said, looking a little out of breath, "so that it will be able to climb the steepest hill in Montreal."

Gear ratios and different forms of transmission are the real nuts and bolts issue, Labelle said. "When we set up the experiment," he said, "we ran into the problem of not having any figures to work with." The number of gears, he said, isn't the problem: it's determining the spread and with Labelle's model, the problem is determining the spread over five gears of a bicycle-type transmission.

We thought: stop the sliderule stuff and tell us if the thing will



## ISSUES & EVENTS

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## Things go better red

### BROTHELS USE RED LIGHTS FOR GOOD REASONS.

The first lady to hang her professional plaque under a red light knew exactly what she was doing, Sir George marketing professor John Moore tells us.

Prostitutes, after all, are in business and are concerned, as any entrepreneur would be, with productivity. And they learned long ago, says Moore, that red would stimulate customers to reach a higher level of excitation and ejaculate faster. Red increased traffic and revenues.

Students and businessmen alike might take some leads on color tricks from these spirited ladies.

Red, or perhaps even better, pink, can be useful at parties. "If you want to have a good party, you should put pink bulbs in your living room lights," Moore continues. "It lifts the tone." Pink parties would start faster and reach a higher pitch of involvement and excitement, yet less liquor would be consumed. With blue lights, the parties would be slower to pick up and people would drink more, Moore says.

Mind you, this assumes that people attend parties to enjoy human interaction and not to drink themselves into a stupor. Color,

in the form of light or paint, only serves to urge people closer to their goal, Moore explains. If their main interest is in drinking, pink will reinforce their desire. On the other hand, if they want to sober up, they should move to a blue room. Blue depresses and relaxes, he says.

That's the reason blue may be

used in hospitals, Moore adds. "Where people are deeply concerned about what's going to happen to them, blue will help reduce tension and even cause their blood pressure to drop."

For offices where the employees are required to work frantically but have no control over the input, blue is suggested for taking the heat off. "If you want lots of trouble in a department store adjustment bureau, paint it red; every other customer will be fighting like hell. But if you paint it green or blue, you'll have more relaxing meetings."

Some businesses have exploited human response to color, "but for every one that is applying it scientifically there are probably 20 that are using it intuitively or just taking a wild stab," Moore asserts.

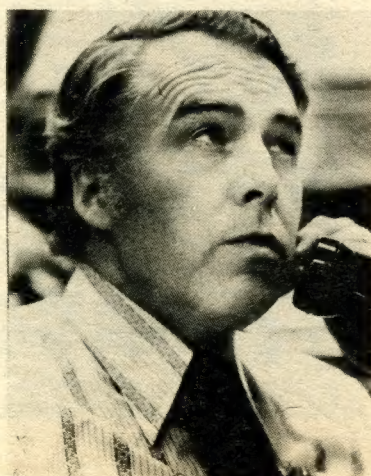
Nonetheless, color can be marginally productive, and it is at the margin that businesses typically hope to gain.

"I've noticed that Simpson's have put red velvet in the men's department. This is a masculine, potent color. I'm sure that this will improve the sale of men's clothing. It (the velvet) says right away that it is a man's place, that it's potent and exciting, and you'll take this psychological lift

continued page 6



Blader



really get off the ground, or more precisely along the ground. "A lot depends," Labelle said, "on how successful we are with this design and of course how successful the concept is with the public. And that's what we're trying to achieve - a low price, comfort and easy peddling." Labelle said that a big hurdle in Montreal was winter weather, and as any grocery delivery man will tell you as he noses into a brick wall, driving a bike in the snow is tough.

The first hurdle though still remains: getting the design and model in reasonable shape before industrialists come in at the end of term to pass judgement.

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# Sir George readies for deficit year ahead

The following announcement by the Rector and adjoining statements were delivered to the SGWU Board of Governors Thursday, November 8.

The Provisional Operating Budget for 1973-74 tabled today represents the expenditures envisaged at the beginning of the term in September. Thus it does not include either the effect of the settlement with the library workers beyond the amount that had been budgeted, or the reduction in revenues resulting from the shortfall in enrolment below the projection submitted to the government.

The effect of the library settlement on other salary scales in the University is now under study, and the impact on the total budget is not yet known. It is clear, however, that some combination of an increased deficit and reductions in other expenditures will be necessary. The reduction in expenditures will in all probability have to come primarily from the academic budget, since present levels of inflation combined with earlier budget cuts have left few possibilities in other areas.

We have now received information on the reduction in the government grant as a result of the shortfall in enrolment. Our grant will drop by \$229,000, and the deficit shown in the tables will be increased by this amount.

The deficit of \$54,000 shown for Student Services has been deliberately budgeted against a cumulative surplus of \$71,000 in this area. The surplus of \$12,000 for auxiliary services comes from printing; other services are budgeted on a break-even basis.

The rising deficit for 1973-74 in the areas of basic university operation is a matter of concern. Still more so are the implications for 1974-75, since the factors underlying our current deficit will have an even greater effect next year. On the one hand, enrolments will again drop as the second year of the collegial program is phased out. On the other, the general extension of the \$100 a week minimum salary through the public sector will have an impact on the salary budget far beyond the increments normally allowed for in the university financing formula.

It is clear that Sir George Williams will require special financial treatment if we are to maintain anything approaching a balanced budget in this situation, a situation in which we are in fact implementing government policies. This is what we will be pointing out to the representatives of the government in meetings in the near future; their effect on the operation of the university has to be recognized and allowed for.

## Liquor and SGWU

Shop early for party permits where liquor and beer licences are concerned. Assistant dean of students Jack Hopkins tells us: "The liquor board is cracking down and insists that applications be in 10 days before permits are issued." Advises Hopkins: "By the time you get your papers filled out (at the Dean of Students Office, 4th floor, Hall bldg.) and your application to the board, it could take longer, so plan a couple of weeks ahead." Hopkins says time used to be better: "Used to take just a couple of days."

SIR GEORGE WILLIAMS UNIVERSITY							
PROVISIONAL OPERATING BUDGET - 1973/74							
(Thousands of \$)							
	Academic		Commerce and Administration	Engineering	Graduate Studies	General	Total
Salaries							
Full time faculty	3,451	1,297	754	838			6,340
Part time faculty	745	92	221	85			1,143
Auxiliary teaching	170	179	50	79			478
Support personnel	386	275	79	249	32		1,021
Total salaries	4,752	1,843	1,104	1,251	32		8,982
Employee benefits	319	119	67	88	2		595
Other expenses	348	185	80	222	29	149 *	1,013
Total expenses	5,419	2,147	1,251	1,561	63	149	10,590

\* Includes contingency for shortfall in enrolment (\$88,000), Statistics Laboratory, Art Gallery and Conservatory of Cinematographic Art.

W.M. Reay, September 12, 1973.

SIR GEORGE WILLIAMS UNIVERSITY										
PROVISIONAL OPERATING BUDGET - 1973/74										
(Thousands of \$)										
	Academic	Library	C.I.T.	Computer Center	Administration	Land and Buildings	Total	Student Services	Auxiliary Services	Total
Salaries										
Full time faculty	6,340						6,340			6,340
Part time faculty	1,143						1,143			1,143
Auxiliary teaching	478						478			478
Admin. and professional	411	62	230	582	119		1,404	249	27	1,680
Support personnel	1,021	617	248	199	756	952	3,793	189	173	4,155
Total salaries	8,982	1,028	310	429	1,338	1,071	13,158	438	200	13,796
Employee benefits	595	58	13	24	90	59	839	36	17	892
Other expenses	1,013	654	102	571	734	2,423	5,497	291	803	6,591
Total expenses	10,590	1,740	425	1,024	2,162	3,553	19,494	765	1,020	21,279
Departmental revenue		20	35	339	136	387	917	66	1,032	2,015
Net expenses	10,590	1,720	390	685	2,026	3,166	18,577	699	(12)	19,264
Fees and other miscellaneous revenue							4,642	300	-	4,942
Government Grant							13,868	345	-	14,213
Total revenue							18,510	645		19,155
Deficit							67	54	(12)	109

W.M. Reay, September 12, 1973.

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The pedal car idea was slammed by *Consumer Reports*. Blader said, because the prototype they tested proved to have a poor brake system and the fibreglass body didn't provide much protection against a conventional car slamming into it. Blader said that the car wouldn't be really workable with Montreal's current traffic pattern but if Montreal followed Britain's lead, we could strike a compromise and have wide slices of the roads designated bicycle and pedal car lanes.

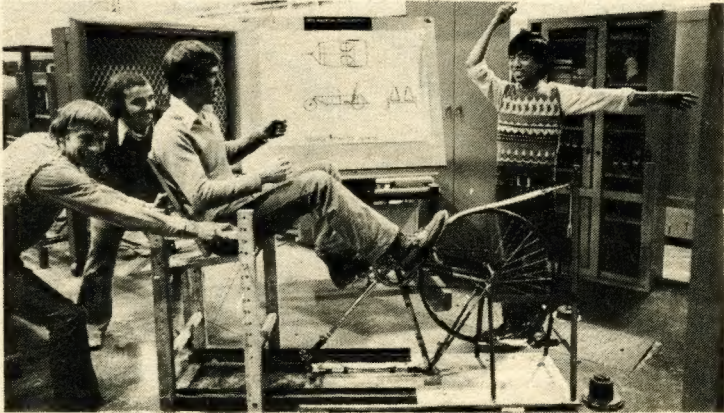
And what turned on 60-odd students and three engineering profs to pedal power? A piece on peddling in that pinnacle of sexism, *Playboy* magazine. "It seemed an effective way to generate enthusiasm," prof. Blader said.

The pedal power experiment is in many ways an offshoot of what Blader described as a departure from the purely theoretical, slide-rule approach to engineering teaching. Oral and visual (lucid make-up of diagrams and report writing) communication in an en-

gineer's education were often left by the wayside while the teaching thrust was given up to building a student's mathematical foundation. Blader's introductory engineering design course is designed specifically to catch up on the thinking and communication lag: "We want to motivate them to do some creative thinking and to get them to use their intuition and initiative to come up with ideas."

If Blader's thinking is right,

Canada's puddle of secondary industry will begin to look like a pond: "You cannot have secondary industry if you have people educated only to obey the sliderule," Blader said. "You have to allow people to develop their creative abilities in design work, in order to have a good supply of engineers going into secondary industry." The pedal car, he suggested, was one possible secondary industry project.



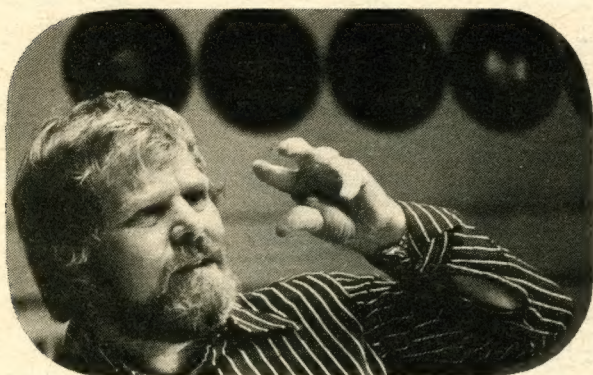
Itching to propel pedal power are (l to r) engineering design students John Russell, Pat Plouffe, Paul Labette and Hai Manh.



# SPREAD

## LEARNING ENVIRONMENTS

Here is the second of two edited extracts from former Sir George prof Scot Gardiner's forthcoming book "Universe U." Last week, Gardiner dealt with tools of the learning trade; here he describes the kind of environment he'd like to see in which to use them. Copyright 1973 W. Lambert Gardiner.



### Communities should be heterogeneous

Sociological systems, like biological systems, are more likely to survive if they diversify.

The overspecialized university could go the way of the dinosaur.

It is more likely to survive if broken down into a set of smaller communities.

Not homogeneous colleges as at York University and Santa Cruz University, though that is a small step in the right direction.

But a set of heterogeneous communities each characterized by a different learning style.

A collage of colleges.

A university modelled on the orchestra rather than the platoon.

Here are a few suggestions of models for communities embodying different learning styles.

#### *The Smorgesbord*

A wide variety of resources laid out without any obligation to do anything. All you can eat for \$4.50.

If you have a big appetite, you get your money's worth.

If you have the intellectual appetite of a bird and a brain to match, that's OK. It's your money and your life.

A community whose only goal is to allow its members to pursue their own goals.

Including no goals.

A place to learn purposeless activity in preparation for leisure.

A college for those who don't want to go to college.

A shakedown centre between high school and university.

A decompression chamber for adolescents.

A concentrated corner of Universe U.

A time to disentangle from the projects of others and find one's own.

A place to stand.

A space to think.

Critics will argue that students will never learn in such a South Sea Island paradise nor will they ever leave it.

They will say that students do not work very well even under pressure and, if you take the pressure away, they won't work at all.

However, students work very little because of the pressure rather than in spite of it.

Take away the pressure and those who have work they want to do will do it.

Those who don't want to do anything will have the opportunity to find out why this unnatural state of affairs exists.

#### *The Growth Centre*

A community to educate the whole organism rather than the top crust of the nervous system.

A place to develop the many ways to be intelligent rather than the few ways we now focus on.

A place to erase that caricature of our culture - the academic genius who is a social moron and a physical wreck.

A place to learn subjective truth as well as objective truth.

A counterforce to the "dis-ease" and "mal-aise" of our times.

A place where the sensual is essential.

A laboratory to learn to live with others.

Critics will argue that this is not the function of the university.

However, whoever has the function is not performing it.

Witness our overflowing psychiatrist couches, divorce courts and military graveyards.

#### *The Institute*

A community which gathers to do things together.

To build a Utopia or to play the World Game.

To study a topic or to solve a problem.

A group which sets out to do something and then finds out what it needs to know in order to do it.

A group which asks questions before looking for the answers.

A brainstorming session which never adjourns.

#### *The Guild*

A community working together to produce beautiful things.

To close the gap between art and artifact.

To become producers in a world which conditions us to be consumers.

To re-establish the fact that everyone is an artist.

To restore respect and dignity to the craftsman.

To explore the miniaturization of industry.

To beautify and personalize our lives.

It requires little imagination to visualize other models.

*continued*

### Metro: at Berri transfer to Education

It's not that ex-Georgian Harry Parnass wants to put Sir George, or anyone else, out of business. But he has developed a new version of the old Mahomet-to-the-mountain syndrome and if his ideas are accepted, the whole concept of universities and of education in general could be in for a drastic change. And if, somewhere, somebody can't or won't adapt, then they could well be out.

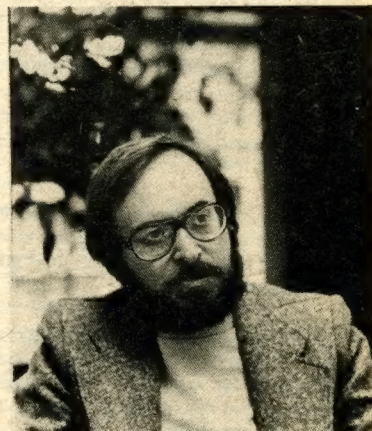
Essentially Parnass' idea is simplicity itself. Instead of bringing students to one or two central points, he proposes that we "bring education to where the action is." He points out that, in this city, "no one is ever more than 500 feet from a Coca-Cola" and he sees no reason why the same marketing techniques couldn't be applied to education. And since there are approximately one million people living within a 30-minute ride of the Berri-de Montigny Metro terminal, Parnass suggests that the Metro itself would make the best available classroom facility.

At first the idea sounds wild. No wilder, mind you, than some of his other projects. But still wild. But after a while it begins to make sense. After all, he points out, education is one of the most expensive propositions in our society and, in many respects, one of the least efficient. Huge academic complexes are being constructed at a phenomenal rate and at a phenomenal cost, only to stand empty much of the time. So, instead of continuing with this costly and wasteful educational spiral, why not, he asks, take advantage of existing but unused space in even more convenient locations? And what could be more convenient than the Metro?

There are, he says, vast quantities of unused spaces in many if not all of the Metro stations which could easily be adapted for

classroom use. Mezzanine areas, vacant stores, and even cinemas, which are almost always vacant during the mornings, could be used as classrooms and there would be no need to build ancillary facilities such as washrooms, bookstores, restaurants etc. because they already exist. Thus, at less than minimal cost, a complete new educational complex could be established with the added advantages of maximum convenience, in terms of transportation time for a large portion of the population.

And, Parnass says, this kind of a decentralized system would also permit more co-ordination between institutions so that there would be less duplication of resources in the fields of teaching and administration. He even envisions an airport-type closed-circuit television system to direct students and professors to their classes. And, he emphasizes, the entire concept could be implemented for costs that "are hardly worth discussing".

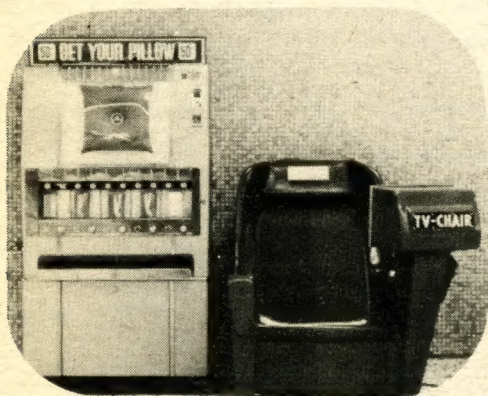


This is no half-baked idea, or back-room theory. For more than 18 months Parnass and his associate Michel Lincourt have been undergoing "a long, painful, drawn-out process of consultation" with almost anyone who might have anything to contribute - teachers' groups, the Montreal Catholic School Commission, the

*continued*



The Academy for those who want calm, contemplative study.  
The Department for those who want to learn the techniques of a particular discipline.  
And so on and so on.



## Communities should be self-sufficient

Those communities can be spawned by the traditional universities. But this presents certain problems. We cannot expect too much from what passes for reform within the established system. The education industry is a multi-million dollar business employing thousands of people. Why should it destroy itself? Only a few liberals, pursuing their death instincts, seriously want any basic change in it. What masquerades as reform is mere tinkering. A change in the curriculum assumes the curriculum, a new course assumes the course, a different grading system assumes grades. We should be questioning the concepts of curriculum, course and grade. We should be building a new system rather than fiddling around with the elements of the old system. We should be seeking Copernicus rather than adding yet another epicycle to Ptolemy. My young Marxist friend was probably right in attacking me as the true enemy of change, since I helped patch up a dilapidated system so that it may survive a little longer. I just wish he hadn't added "Come the revolution and you've got to go".

Within the ground rules of each style of college, the students should run it by themselves. They can learn science and mathematics by doing science and mathematics but they cannot learn economics and political science by doing economics and political science. They are not permitted to govern their country or plan its economy. They can, however, practice on that microcosm of their country which constitutes the community. This may be inefficient in business terms but not in educational terms.

If each community is self-governing, it will probably also have to be self-supporting. It is difficult to get public funds to support private projects. It is even more difficult to get public funds without strings attached which may be used to jerk it back into line. Until that distant day when public officials recognize that the most efficient use of public funds is to finance private dreams, that what is good for Joe Blow is good for America, communities will have to support themselves. The Smorgesbord and the Growth Centre could perhaps support themselves on student fees.

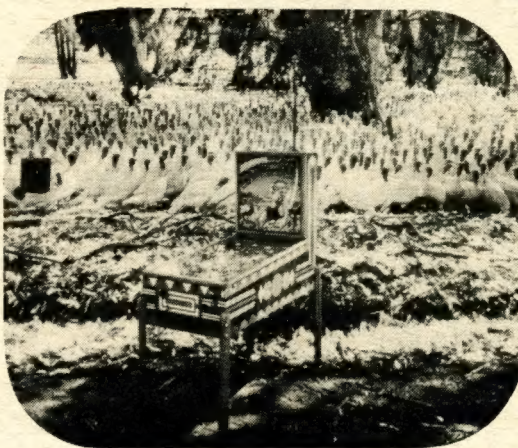
The embarrassing question will inevitably arise as to why students pay and professors are paid for being members of the community. Perhaps the class distinction between professor and student is partly preserved to avoid this difficult question.

Some enlightened universities may be persuaded to allow a group of students to form a community, to turn over their fees to the community and to give them credit for what will inevitably be an enlightening year. The Guild and the Institute could perhaps support themselves by providing goods and services. Guilds could make things for the members of other communities or for the public hungry for personalized items. Institutes could conduct research and solve problems for individuals and organizations.

No matter how self-sufficient, however, a community exists within the context of a larger society.

A persistent question is the larger re-entry problem of what to do after the student leaves the community and goes back into the larger society. Critics would say that there is no value in creating oases of sanity in an insane desert since the students must go back out into the desert. They seem almost to be saying that, since we live in an insane world, we should raise insane people so that they will be adapted to it.

But a traveller who stops in an oasis can fill his water-bottle and thus survive when he returns to the desert. A sane man in an insane society may be as maladapted as an insane man in a sane society but he has a better chance of survival. But why must they leave the oasis? Why can those oases not multiply until the desert is transformed into a garden? Why can those communities for learning not evolve into communities for living? Why worry about re-entry problems if we are off to colonize the moon?



## Communities should be organic

Biological systems, like wine and cheese, you and I, mature with time and then, alas, decay. As opposed to technological systems which are best when "new" and gradually deteriorate. The communities should thus start small and grow gradually. An enlightened counsellor, more concerned with making well people better than sick people well, starts an encounter group and imperceptibly the counselling centre evolves into a growth centre. An artist sets up an easel, allows students to look over his shoulder, gets them involved Tom Sawyer style, permits them to become informal apprentices and gradually they realize that they form a guild. Just as nature plans the obsolescence of her species, so the founders of a community should allow it to self-destruct. Just as biological systems no longer adapted to their environment die a natural death, so should the communities. If the university consists of a diverse collage of colleges, it will tend to survive though each individual college matures and decays. It would be like Gardner's ever-renewing society. A total garden in which "some things are being born, others are flourishing, still other things are dying - but the system lives on." Or, in a more mundane metaphor, it would be like my grandfather's axe which has had two new heads and five new handles but still survives as my grandfather's axe.

### continued

Montreal Museum of Fine Arts, the Université de Montréal, Metro officials, and the provincial and federal governments. They have produced a 150 page report in which they cover every aspect of almost every possible problem that might arise. They have, for instance, approached theatre owners and discovered that, for a dollar a month per student, the movie houses could be made available during off-hours.

So far, however, the response to the project from within Canada has been disappointing. Aside from the Université de Montréal and the Ford Foundation, who jointly sponsored the study, educational institutions have been generally rather cold to Parnass' ideas. The problem, he says, is that "entrenched, establishment interests" like the MCSC feel threatened by any radical new developments in their field. A decentralization such as he proposes would cut down on their influence and power. So, Parnass says, most of the really positive response that he has had within Canada has been from CEGEP and university stu-

dents, particularly from Dawson College.

But outside the country the Metro/education concept seems to have caught on. Both Parnass and Michel Lincourt have lectured several times in Europe and they have received requests for more information from such widely diversified spots as Moscow, Barcelona and Geneva. Their report has been translated into a number of other languages, including braille, and it is a required textbook at the Open University in England, the largest university-level institution in the world with almost a quarter of a million students.

Most of the these outside inquirers are, of course, interested in the economic aspects of the plan, but Parnass is far more excited by the human and resource potential which would automatically become available. The student market, for example, would be immensely increased by the mere availability of the educational facilities. The normal commuter, Parnass suggests, could easily take in a class or a seminar travelling to or from work



# SPREAD

The traditional university is kept artificially alive by constitutions designed to perpetuate itself.  
It can thus continue to exist even though no longer functional with respect to its environment.  
It acquires functional autonomy.  
The function of each element is defined with respect to some other element within the system.  
It becomes like a sign on a stick reading "Look out for the stick".  
What is the sign for?  
To prevent people from running into the stick.  
What is the stick for?  
To hold up the sign.

Communities modelled on biological systems will evolve to fit the environment.  
The physical setting is therefore very important.  
We can reform man only by re-forming his environment.

The physical setting of the traditional university is notoriously uncongenial. Future archeologists will be able to reconstruct our philosophy of education from the remaining symptoms of our Edifice Complex.  
There is more information in bricks than in books, in mortar than in mortar boards.  
The blackboard tells more than what is written on it about chalk and talk persisting well into an age of computers and television.  
Excavating a traditional classroom, they will find desks bolted to the floor (learning is passive rather than active) all facing the "front" (the teacher is the source of all knowledge) where the desk of the teacher is topped with a lectern.  
(the word of the teacher is gospel).  
Segregated washrooms and dining-rooms will tell them much about the relationship between professors and students.  
Separate dormitories and classrooms will speak volumes about the relationship between living and learning.

Students in the traditional classroom are transients, passing through from 10.15 to 11.25.  
The only place they can call their own is a locker.  
The only gathering places are the anti-intellectual atmospheres of lounges and cafeterias.  
Students, too often not at home even at home, need a home away from home. They need people-sized places where they will want to be and to be together.  
They need private corners where individuals can be alone and public places where groups can meet.  
In such accident-prone environments, tutorials and seminars would ignite spontaneously.  
Leacock, when asked to build a university, would start with a smoking-room.

Such environments need not be expensive.  
Indeed, there are usually many such environments available free within a radius of a mile of most universities.  
Proprietors of pubs and coffee shops are happy to have a seminar-size

or on his lunch hour, while a housewife could include her particular educational experience in her normal shopping day. And what's more, Parnass emphasizes, because the trip from Atwater to Frontenac, for instance, takes only 10 minutes, an enormous range of classroom facilities and therefore possible subject areas would be easily available to an extent that would dwarf the potential of any existing educational complex.

Even more important, Parnass says, bringing education to the people will make it easier for many people to whom school was the scene "of their earliest psychological failures" to return and to get the training they need to advance their careers on "neutral ground."

Still more fascinating, however, is Parnass' conception of the teaching resources which could be tapped. "If the president of the Bank of Montreal," he says, "could just take an escalator down from his board room, spend 20 minutes conducting a seminar and then get back to his office, you might be able to persuade him to

do it. Right now, he has to find a cab or get to his car, fight traffic across town, deliver his lecture, and then get back. He just won't do it because it means that he blows half a day, and he can't afford to blow half a day."

These teaching resources, Parnass says, are our most valuable and wasted asset. If we can "plug these experts," be they artists, professionals or businessmen, "into the educational process" we stand to gain enormously. The whole concept was developed, not only to "countervail the force of blockbusting schools" but also to facilitate communication between as many different segments of society possible.

But Metro/education is by no means the only project close to Parnass' heart. He has an idea for opening up more green spaces in the city by means of a series of longitudinal and latitudinal parks which would be created by closing every fourth street and grassing it over. In that way it would be possible to walk to any point in the city with a minimum of the inconvenience caused by traffic, pollution and crowds.

group of customers during the quiet hours of the afternoon.  
A pocket university once evolved out of meetings after my afternoon lectures in a cellar pub called the Boiler-room.  
Long wooden tables and church pews, low lights and quarts of beer provided an ideal setting for a seminar.

Give students an old rented house and let them decorate it themselves. They will make a mess of it but it will be their mess.  
They will feel some control over their environment rather than the alienation they now feel as they flit like ghosts through the monuments presently available.



## Meetings should be spontaneous

I would recommend that tutorials be at the initiative of the student.  
That the student comes knocking on the professor's door when he has something to offer.  
That the professor replaces his "Please do not disturb" sign with a "Please disturb" sign because he will have fewer visitors but they will bring him something worthwhile.

I would recommend then that the seminars also be at the initiative of the students.  
That any student be free to start a seminar by inviting any other students interested in a common topic to convene to discuss it.  
That the professor be available to provide resources as fuel to keep the fire alive once it is ignited.  
That the seminar be allowed to die a graceful natural death when the interest which ignited it can no longer sustain it.

There is, of course, no reason why professors cannot trigger this student interest.  
They don't need necessarily to start riots.  
We found that a showing of "The War Game" fired a spate of spontaneous seminars.  
Even such contrived situations as debates and psychodramas can provide a common experience and perhaps also the motivation to make sense of this experience.  
Many spontaneous seminars, if not triggered, can at least be anticipated.  
We failed to anticipate the tremendous impact of "The War Game" and thus do not have the materials ready to fan the resultant intellectual fire.  
Scheduled events like a Presidential election or a trip to China during the academic year can be anticipated and materials prepared to take advantage of the intrinsic interest they will most certainly initiate.

I would recommend then that lectures be given only at the initiative of the lecturer.  
When any member of the community feels he has something to say, he should schedule a lecture and present it to those who choose to attend.  
Rather than having professors "give" courses and students "take" them, both should be free to give and take as they wish.  
I have certainly found that it is more blessed to give than to receive.  
I have learned infinitely more by giving lectures than by taking them.  
Surely, since ostensibly universities are designed so that students may learn, they should be provided with this opportunity.  
Needless to say, few students will take advantage of the opportunity.  
Few students will offer lectures because they will come to realize that they have little to present and few students will attend student lectures because they will come to realize that they have little to gain.  
We could have told them this of course.  
But knowing what you don't know is one of those things which is easier learned than taught.

I have recommended that meetings - whether tutorial, seminar or lecture - be spontaneous in the sense that they be initiated by a member of the community rather than imposed by some pre-established structure.  
In a well-designed learning environment, meetings will also be spontaneous in the sense that they just somehow tend to happen.  
A chance meeting on a staircase.  
A chance juxtaposition at a dinner table.  
Hey presto. A tutorial.  
An argument over the dinner table which spreads to involve everyone seated at the table.  
Hey presto. A seminar.  
A professor gets carried away on a topic he is discussing, a crowd gathers.

*continued*



Hey presto. A lecture.

Most of my most memorable intellectual experiences occurred by accident. Two rival perception theorists swap demonstrations and explanations in a debate which erupted after one of them had presented a formal colloquium. A prominent psychologist, a little drunk at a cocktail party, expounds on how he *really* does his research.

Two articulate professors, one of economics and one of philosophy, play intellectual ping-pong on the relative merits of their disciplines, in a coffee house after formal lectures are over.

We must learn how to create accident-prone environments. In which the probability of such accidents is high.



## Evaluation should be self-evaluation

I would recommend that all evaluation be self-evaluation.

Surely the important standards are not out in some mystical objective space nor in the subjective world of the professor but in the subjective world of the student.

Would it not be better then if the student were allowed to evaluate himself? Is he not the world's foremost expert on himself?

Are not the most important standards within himself and, if not, perhaps our most important function is the development of sound standards for self-evaluation?

Self-evaluation would then be honest since dishonesty would be like cheating at patience.

But, you argue, universities must provide indices of performance to graduate schools and potential employers.

Why must they?

Why should undergraduate schools serve as filters to provide more concentrated pools of talent for graduate schools and commercial firms to fish in?

Let them develop their own selection procedure.

Besides, if the student were to build during his university career a portfolio of his papers, journals, art work, letters from professors, pass slips from the central examination centre, surely this would be more informative than 2.53?

Better still, if his university training had been recorded in the great Records Office in the cerebral cortex, he would expose his credentials by opening his mouth.

## Marking has its points

At least one Sir George prof isn't too enamoured of Scotty Gardiner's dream of Universe U. On the contrary, Michael Marsden of geography claims to have detected a significant malaise among students precisely because the grading standards at this university aren't tough enough.

"One natural consequence of 'easy markers'," he says, "is that those people who work hard in normal courses do not wish to be compared with those having grades from the 'easy' courses, and hence tend to deprecate the entire system. Eliminating the easy marker would, paradoxically, ease a number of the complaints that students have about grading as it presently exists."

Grading, Marsden argues, is a fundamentally healthy concept because it induces competition between students and thus stimulates them to higher levels of performance. And furthermore, since our society is based upon competition, both economically and socially, it would be utterly unrealistic for us to ignore the system even within an academic atmosphere. After all, he points out, job interviews and dramatic auditions, to take two common examples, are both only different modes of the testing procedure.

But this does not mean, Marsden says, that grading is an elitist concept, and he cites the case of the national examination system in Britain as proof. When the scheme first came into existence during the nineteenth century, he says, it was hailed as one of the great democratic reforms of the age. For the

first time, it afforded an opportunity for the competent commoner to compete with the less qualified but better connected members of the aristocracy. But today, Marsden complains, our society is "too willing to protect the poor or lazy performer, and is willing to sacrifice the better worker in that cause."

A great deal of this unhealthy attitude, Marsden says, could be corrected by tougher marking on the part of professors. This would stimulate the students to work harder and ultimately to enjoy their work more, as well as instilling a new respect for the value of the grades themselves.

Most of the burden for this transformation must be placed on the teachers. Many of them, he says, need much more skill in grading and must begin to realize that marking, far from being an arbitrary value judgement on a student, is actually a subjective choice. This "faculty complacency" must be shattered, possibly by a cumulative series of honest student evaluations, before the grading system can regain some of the credibility that it so badly needs, Marsden feels.

"Any man," he insists, "who despises grading and gives high grades, isn't making his point at all. He's breaking down another man's system, not creating his own." Thus students must be able to see that the professor isn't denigrating their work by placing it on a par with an inferior product, or by marking less exhaustively than he should. No matter what form of grading is used, and Marsden sees them all as useful in varying degrees, the teacher should be putting enough of himself into the evaluation that the student can feel challenged to perform better and to develop an interest in his subject.

*continued from page 1*

away with you."

Moore believes there is a sort of "law of the brain" which states, essentially, that output tends to parallel input. "If we get a favorable emotional input when we buy an article of clothing, there is a good chance that it will be duplicated at least marginally every time we put it on. That is why most people hate to give up old clothing."

But once that old shirt finally falls apart, chances are that if red velvet radiated good vibes when you bought it, you'll be back there for another.

Study is another activity where suitable colors may stimulate marginal improvement, says the professor. Since different colors affect us differently, depending on our current mood, Moore suggests that we put together some 15-inch squares of various colors which can be hung on the wall, so that when we sit down to study we can focus our attention on that particular color which will put us in the right frame of mind for the moment.

For example, if sports have rendered the body (and hence the mind) hyper, then blue may be

the right color to cool things down. On the other hand, if getting started in the morning is a hang-up, perhaps staring at a yellow square for a few minutes will produce the needed arousing effects. Or red, with its implications of success and power, may stimulate motivation for exams. These suggestions don't guarantee magical results, Moore cautions, but for some they may prove useful.

Although yellow can stimulate creativity, the marketing professor warns against using it in situations where there is no outlet for the creative impulse. He recalls having painted an office yellow, only to find he was getting headaches through frustration over having to do a lot of monotonous and routine work.

Purple is a happy color, and people knew what they were doing when they reserved it for royalty, Moore insists. It didn't take sorcerers to point it out. People just knew such things intuitively and by observation, he maintains. Moore believes that in our "media-soaked" environment we have lost touch with these fundamental responses. But we are beginning to regain our senses, he says.

## Brisk grad. trade

Encouraging news for doubtful teachers worried about the future of universities and job security comes from Dean of Graduate Studies Stan French, just back from a computation with the graduate schools association. Following is his edited report:

Normally at this time of year I return from the annual meeting of the Canadian Association of Graduate Schools and report on graduate enrolment at Sir George vis-à-vis the graduate enrolment at other Canadian institutions. There are 35 Canadian universities offering graduate programs. In terms of total graduate enrolment in 1973-74 SGWU stands in 11th place. A year ago we were 13th.

The breakdown for the top 17 is as follows: Toronto (6796), Montreal (6349), McGill (3365), Ottawa (2889), British Columbia (2655), Alberta (2652), Laval (2494), Manitoba (2352), Western Ontario (1935), York (1928), and SGWU (1767).

Universities with a lower en-

rolment than SGWU are McMaster (1722), Waterloo (1589), Queen's (1325), Carleton (1230), Calgary (1086), and Dalhousie (1004). The remaining 18 universities have a graduate enrolment of less than 1000.

The above figures include students in the qualifying year and students in diploma programs.

In terms of part-time graduate enrolment, SGWU stands in 5th place, as we did a year ago. Canadian universities with a larger part-time graduate enrolment than SGWU are: Montreal (3262), Toronto (2630), Ottawa (1791), and Laval (1541).

Sir George has 1392 part-time students in 1973-74. There are only two other Canadian institutions with a part-time enrolment in excess of 1000, and these are McGill (1056), and Manitoba (1029).

Across the nation, full-time graduate enrolment in 1973-74 shows a 2.9% increase over 1972-73, part-time enrolment shows a 5.1% increase, and total graduate enrolments show a 3.8% increase.



**THE ERNIE GAME** concerns Ernie's view that life for him can't be anything but a game in mid-winter Montreal. Ernie has an up-and-down romance with a girl played by Judy Galt, a smashing lady who used to be a babysitter locally when she was younger and anyone young enough to have bounced on her splendid knees should not miss this one.

## McLaren, Jutra films here soon

The Conservatory of Cinematographic Art has rounded up several National Film Board productions which will run for several days beginning November 22. (You'll know the day because the local papers will run think pieces on whether or not John Kennedy was a good president.) Among the dozen or so films to be shown are Claude Jutra's celebrated feature *Mon Oncle Antoine*, Robin Spry's *Prologue*, films by Don Owen - *Nobody Waved Good-bye* and *The Ernie Game* and several of Norman McLaren's shorts including *Opening Speech* and *Neighbors*.

*Nobody Waved Good-bye* concerns the bad spaces a runaway kid gets into after leaving his middle class, middle-mores parents for the cold life outside. This film comes recommended for those want to find out how alienation works and where delinquency begins.

For times, admission, etc... see next week's back page.



## Even educated fleas do it

How do you explain hard edge painting to someone familiar only with landscapes?

And how to describe the writing of James Joyce without quoting him?

Such were the tantalizers put to our jaded ears when we tried to get the inside lowdown on Meta-music (also known as "The Sound of Three Hands Clapping"), a SGWU-based electronic music improvisation ensemble now giving free performances around town.

"Everyone has music in them; you don't need twelve years of piano lessons to do it, you just widen your ears and do it," says spokesman Kevin Austin. Doing it with Austin are Howard Abrams, Marty Gotfrit, Dawn Luke and Ross McAuley. They deal in pure sound, as distinct from melody and rhythm, and they do it through five channels

spread around the hall. What comes out stems from two synthesizers and a unique acoustic kind of zither, plus whatever group members are into that day (fingers rubbing together, breath-

ing sounds, etc.). Because of the simplicity of the latter, the audience is often invited to join in with whatever pure sound moves them.

The aim, says Austin, is a kind of sensitization to the joy of sound: "Some say it's just noise, but, to some, all the color red around them is just red."

For those who clip lists (not to forget those who get off on the sound of scissors snipping), here are the next free concerts:

Nov. 18, 8 p.m. at U de M's Centre communautaire, 6th floor; Dec. 2, 3 p.m. at Musée d'Art Contemporain, Cité du Havre (number 12 bus); Dec. 12, 7:30 p.m. on the 3rd floor of McGill's Strathcona Music Bldg., 555 Sherbrooke W.; Dec. 16, 7:30 p.m. in the Sir George art gallery.



## Saucy painting

A National Gallery exhibit of Robert Harris paintings moves into the Sir George galleries November 15 and will be on show till the middle of December. Harris, who is often described as Canada's foremost portrait artist, painted at the turn of the century and is known for such works as 'Fathers of Confederation', which was destroyed during the 1919 Parliament Building fire, and 'The School Trustees', which caused such a stir when it was first exhibited at the Royal Academy in London that the painting had to be roped off from the throbbing mob. The ropes are down apparently but the painting still causes the odd stir, according to exhibit organizer Moncreif Williamson.

The painting shows a young teacher giving the assembled

board what for, so watch out.

Apparently the travelling show has produced a lot of discoveries of old Harris paintings uncovered in attics and basements across the country. One massive discovery was made recently in the Charlottetown post office basement - 300 canvases, but alas, most were unsalvageable.



## Lightning theatre soon here

The student publicity department of the theatre arts section of the department of fine arts of Sir George Williams University of Montreal, of Quebec, of Canada (well maybe) tells us that three one-act plays will be presented Wednesday, November 14 through Saturday, November 17 by theatre arts students in the D.B. Clarke theatre.

Our flak sheet tells us of Thornton Wilder's *The Long Christmas Dinner* which seems indeed long: almost a century's worth of turkey, you might say, as 90 years of family life is telescoped into one act and, reckoning

on the play covering roughly a half hour, playwright Wilder has his work really cut out for him in covering a year every 20 seconds. Lots of merging scenes, mime and aging, they tell us.

Chekhov's *A Marriage Proposal* is set in late 19th century Russia where Ivan, the neurotic, seeks the dashing Natalia's hand in marriage. Ivan's also a hypochondriac which adds to his problems, not to say poor old Natalia's.

Lawrence Ferlinghetti's *The Soldiers of No Country* deals with lots of mores and personal identity stuff.

Admission is free and the evening programs begin at 8:30 p.m., with matinee performances, except Saturday, at 1 p.m.

Over at Loyola, the Thé-Arts group is staging what's billed as a musical comedy: *Once Upon a Mattress* directed by Randy Davies runs Friday through Sunday, November 9-11 and 16-19 at 8 p.m. But for this you pay: students \$1.25, others \$2.50.



**BORDERING ON POGROM:** When last heard from, Kinky Friedman & The Texas Jewboys were resting comfortably at the Lacolle Inn, riffing on "Let My People Go", while Karma officials hustled to scrape up \$600 bond (\$100 per Jewboy) to make everything kosher with Customs. We are assured the group will make its Canadian debut Thursday.

# SGWU THIS WEEK

Notices must be received by Wednesday noon for Thursday publication. Contact Maryse Perraud at 879-2823, 2145 Mackay St. in the basement.

## thursday 8

**BOARD OF GOVERNORS:** Meeting at 1 p.m. in H-769.  
**CONSERVATORY OF CINEMATOGRAPHIC ART:** Restored oldies from the Library of Congress through Sunday at 7 and 9 p.m. in H-110; 75¢ each.  
**ARTS STUDENTS' ASSOCIATION:** "Nationalism in Canada" week - Don Whiteside, president of the National Indian Brotherhood, on native nationalism at 2 p.m. in H-635; Sir George philosophy chairman Vladimir Zeman on anti-nationalism in H-635 at 4 p.m.  
**KARMA COFFEE HOUSE:** Kinky Friedman and The Texas Jewboys at 1476 Crescent through Sunday; tonight \$3 sets at 8:30 and 10:30 p.m.  
**GALLERIES:** Graduate students in art education - Georges Beaupré, Guy Boulet, Micheline Couture Calvé, Ghislaine Clément Desjardins, Lucie Duranceau, Joan Esar, Michel Fortin, Paul Langdon, Marcél Laroche, Michèle Drouin Martineau, David Moore, Piers Sibun, Martin Somers, Michael Williams, Alan Wilson, Isis Selim Youssef - show their stuff through Nov. 13.  
**GOLEM COFFEE HOUSE:** Columbia records' Roger Rodier at 3460 Stanley St. at 9 p.m.; \$1.50.  
**YOUNG SOCIALISTS:** Meeting at 8:30 p.m. in H-1219.

## friday 9

**COMMERCE FACULTY COUNCIL:** Meeting at 9:30 a.m. in H-769.  
**SCIENCE FACULTY COUNCIL:** Meeting at 2:15 p.m. in H-769.  
**ARTS STUDENTS' ASSOCIATION:** The end of "Nationalism in Canada" with free movies in H-110 noon to 2 p.m. - "Propaganda Message" (NFB's cartoon form for federalism), "Raise a Glass to Your Country" (the Molson commercial); "Visit to a Foreign Country" (NFB looks at Québécois taking a look at US tourists taking a look at them), "Precision" (RCMP's musical ride), and something called "Air Canada - A History"; Andrew Clarke, secretary-general of the World Federalists, on world nationalism at 2 p.m. in H-110; and *Canadian Dimension* stalwart Cy Gonick on socialism in H-110 at 4 p.m.  
**KARMA COFFEE HOUSE:** Kinky Friedman and The Texas Jewboys at 1476 Crescent with \$3 sets at 8:30, 10:30 and midnight.  
**CONSERVATORY OF CINEMATOGRAPHIC ART:** Restored oldies from the Library of Congress through Sunday at 7 and 9 p.m. in H-110; 75¢ each.  
**GEORGIAN SNOOPIES:** Ground school at 8 p.m. in H-415.  
**STUDENTS INTERNATIONAL MEDITATION SOCIETY:** Meeting at 8 p.m. in H-1221.  
**HOCKEY:** Loyola vs Sir George at Verdun auditorium, 8 p.m.

## saturday 10

**CONTINUING EDUCATION:** Mario Duchesne leads an open rehearsal of the Montreal Symphony Orchestra (Capriccio Espagnole, Rimski-Korsakov; Overture to Don Pascale, Donizetti; Concerto in F for Recorder & Bassoon, Telemann; Peter and the Wolf, Prokofiev) 10 a.m. to around 1 p.m. in the D.B. Clarke theatre; free tickets at Hall Bldg. information desk or 2140 Bishop.  
**CONSERVATORY OF CINEMATOGRAPHIC ART:** Restored oldies from the Library of Congress through Sunday at 7 and 9 p.m. in H-110; 75¢ each.  
**KARMA COFFEE HOUSE:** See Friday.  
**HOCKEY:** Three Rivers vs Sir George at Verdun auditorium, 2 p.m.  
**GOLEM COFFEE HOUSE:** See Thursday.

## sunday 11

**KARMA COFFEE HOUSE:** See Thursday.  
**CONSERVATORY OF CINEMATOGRAPHIC ART:** Restored oldies from the Library of Congress at 7 and 9 p.m. in H-110; 75¢ each.  
**GOLEM COFFEE HOUSE:** See Thursday.

## monday 12

**BOARD OF GRADUATE STUDIES:** Meeting at 2 p.m. in H-769.



## tuesday 13

**CONSERVATORY OF CINEMATOGRAPHIC ART:** "L'Age d'Or" (Luis Bunuel, 1930) and "La Belle et la Bête" (Jean Cocteau, 1946) at 8:30 p.m. in H-110; 75¢.

## wednesday 14

**HOCKEY:** Carleton vs Sir George at Verdun auditorium, 8 p.m.  
**THEATRE ARTS:** "The Long Christmas Dinner" by Thornton Wilder, "A Marriage Proposal" by Chekhov, and "The Soldiers of No Country" by Lawrence Ferlinghetti at 1 and 8:30 p.m. in the D.B. Clarke Theatre; free.  
**KARMA COFFEE HOUSE:** Rick Roberts, formerly with Byrds and Flying Burrito Bros., at 1476 Crescent through Sunday; more info at 879-4517.

## thursday 15

**CONSERVATORY OF CINEMATOGRAPHIC ART:** "Macbeth" (Orson Welles, 1947) with Orson Welles and Jeanette Nolan at 7 p.m.; "Romeo and Juliet" (Renato Castellani, 1954) with Laurence Harvey and Susan Shentall at 9 p.m. in H-110; 75¢ each.  
**THEATRE ARTS:** See Wednesday.  
**GOLEM COFFEE HOUSE:** Patty Geary at 3460 Stanley St., at 9 p.m.; \$1.25.  
**KARMA COFFEE HOUSE:** See Wednesday.

## friday 16

**THEATRE ARTS:** See Wednesday.  
**ENGINEERING FACULTY COUNCIL:** Meeting at 2:30 p.m. in H-769.  
**GEORGIAN SNOOPIES:** Ground school at 8 p.m. in H-415.  
**STUDENTS INTERNATIONAL MEDITATION SOCIETY:** Meeting at 8 p.m. in H-1221.  
**SOCIOLOGY & ANTHROPOLOGY:** William Leiss, York prof and author of *Domination of Nature*, gives a Marxist critique of the uses of technology at 3 p.m. in H-520.  
**KARMA COFFEE HOUSE:** See Wednesday.  
**FILLUM:** War as entertainment with "Johnny Got His Gun" at 8 p.m., "Garden of the Finzi-Contini" at 10 p.m., and war shorts in between in H-110; \$1 each.

## saturday 17

**MUSICA CAMERATA:** Free chamber music at 5 p.m. in H-110.  
**THEATRE ARTS:** "The Long Christmas Dinner" by Thornton Wilder, "A Marriage Proposal" by Chekhov, and "The Soldiers of No Country" by Lawrence Ferlinghetti at 8:30 p.m. in the D.B. Clarke Theatre; free.  
**GOLEM COFFEE HOUSE:** See Thursday.  
**KARMA COFFEE HOUSE:** See Wednesday.  
**FILLUM:** War as entertainment with "Dr. Strangelove" at 8 p.m., "Garden of the Finzi-Contini" at 10 p.m., and war shorts in between in H-110; \$1 each.

## sunday 18

**KARMA COFFEE HOUSE:** See Wednesday.  
**GOLEM COFFEE HOUSE:** See Thursday.  
**METAMUSIC:** Sir George's live electronic improvisation ensemble in a free concert on the 6th floor of U de M's Centre communautaire at 8 p.m.

## notices

Some GRADUATE PROGRAMS can accept January admissions, namely economics (Ph.D.) and master's in engineering, mathematics, philosophy and religion; qualifying year applicants should inquire at the departments.  
**PHILOSOPHICALLY INTERESTING** submissions wanted for *Gnosis*, the Philosophy Club's student journal; papers by Jan. 31 to H-633 or 632, where you can also pick up a free copy of the first number.  
 Surely there must be someone in this city who wants to play BASS with a LOUD, working rock & roll band. Call Mitch at 861-5100 or Richard, 484-8089 (no more time-wasters, pulleeze).

## ISSUES & EVENTS

Published Thursday by the Information Office of Sir George Williams University, Montreal 107. The office is located in the basement, 2145 Mackay Street (879-4136). Submissions are welcome.  
 John McNamee, Maryse Perraud, Michael Sheldon, Malcolm Stone, Don Worrall, Joel McCormick, editor.



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## Jobs

### SECRETARY (SC2) - DEAN OF ARTS OFFICE

**DUTIES**  
 Dictation and tape transcription. Preparation of material for committee meetings. Updating and maintenance of departmental files.

**QUALIFICATIONS**  
 Shorthand and typing skills. Ability to work under minimum supervision.

### SECRETARY (SY4) - PERSONNEL DEPARTMENT

**DUTIES**  
 All normal and secretarial duties for director of personnel. French and English shorthand transcription or correspondence, reports, policies etc. Schedules meetings. Prepares agendas and minutes. Answers telephone,

screens calls and deals with general inquiries. Schedules appointments etc. Works on special projects. Maintains budget records and allocations.

### QUALIFICATIONS

Minimum 4 years experience as a secretary. Minimum high school graduation and diploma from secretarial school. Fluency in written and spoken French and English. Ability to translate an asset. Ability to deal with public and pressure situations.

Interested candidates are invited to submit applications in writing or by contacting the Personnel Officers Nelson Gibeau at 879-4521, and Susan Silverman, 879-8116.

## Awards

This list includes awards with deadlines up to December 15. More information at

the Guidance Information Centre, H-440.

### Graduate Awards

**COMMONWEALTH SCHOLARSHIPS.**

Malaysia. Deadline: November 9.

**THE CHEMICAL INSTITUTE OF CANADA.** Ogilvie fellowship. Deadline: November 15.

**I.O.D.E.** Post-graduate scholarships. (For study overseas in a Commonwealth country or for study in Canada. One year of graduate work required). Deadline: November 15.

**CONFEDERATION OF BRITISH INDUSTRY.** Overseas scholarships. (Type A for recent graduates, offers practical training to complement academic work. Type C for experienced employees desiring advanced specialized training). Deadline: November 30.

### Faculty Awards

**OVERSEAS DEVELOPMENT INSTITUTE.** Fellowships for work in Africa. Dead-

line: November 9.

**CAMBRIDGE UNIVERSITY, PETERHOUSE COLLEGE.** Research fellowships. Deadline: November 15.

**THE CANADA COUNCIL.** Grants for cultural exchanges to Canadian universities and cultural organizations. Deadline: November 15.

**MEDICAL RESEARCH COUNCIL.** Associateships; scholarships; research grants. Deadline: November 15.

**ENVIRONMENT CANADA.** Water resources research support program. Faculty research grants. Deadline: November 23.

**MEDICAL RESEARCH COUNCIL.** Centennial fellowships. Deadline: November 30.

**CONFEDERATION OF BRITISH INDUSTRY.** Overseas scholarships. (Type A for recent graduates, offers practical training to complement academic work.